

## REMARKS

### Overview

The current non-final Office Action dated August 20, 2009 indicates the following: claims 11-38 and 49-68 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over “A Social Exchange Architecture for Distributed Web Communities” by A. Tiwana et al. (hereinafter Tiwana) in view of “Memory-Based Weighted-Majority Prediction” by J. Delgado et al. (hereinafter Delgado); claims 11-38 are rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter; and claims 59-68 are rejected under 35 U.S.C. § 112 second paragraph as allegedly being indefinite.

Applicants hereby amend claims 11, 15, 18-20, 22, 24, 27-29, 35-36, and 59 in order to clarify the subject matter of their invention, and further hereby add new dependent claims 69-72. Thus, claims 11-38 and 49-72 are pending.

### Analysis

#### Rejections Not Based On Cited Art

In the current Office Action, the previously pending method claims 11-38 have been rejected as allegedly being directed to non-statutory subject matter, and in particular as failing to satisfy the so-called “machine-or-transformation test.” While Applicants disagree with the basis of these rejections, independent method claim 11 has been amended, and is believed to clearly recite statutory subject matter. In particular, independent claim 11 as amended recites that various claim elements are automatically “performed by one or more programmed computing systems.” Accordingly, method claims 11-38 as amended each clearly recites a particular machine that is programmed to perform particular claim elements, and Applicants therefore request that these rejections be withdrawn.

In addition, the previously pending computing device claims 59-68 have been rejected as allegedly being indefinite under 35 U.S.C. § 112, second paragraph, and in particular as allegedly being directed to software per se. While Applicants disagree with the basis of these rejections, independent computing device claim 59 has been amended, and is believed to clearly be definite under 35 U.S.C. § 112, second paragraph. In particular, independent claim 59 as

amended recites “one or more processors,” and that each of two recited components are “configured to, when executed by at least one of the one or more processors”, perform various recited claim elements. Accordingly, computing device claims 59-68 as amended each clearly recites a definite particular machine that is configured to perform particular claim elements, and Applicants therefore request that these rejections be withdrawn.

#### Rejections Based On Cited Art

The current Office Action has rejected each of the previously pending claims as being unpatentable over a combination of Tiwana and Delgado. However, the pending claims as rejected and as amended include features and provide functionality not disclosed or suggested by Tiwana or Delgado, and thus are allowable over those references.

Specific elements of the pending claims that are believed not to be disclosed by the cited art are set forth in more detail below. However, disclosed embodiments are generally related to techniques for automatically assessing content that is provided by an author user and evaluated by other evaluator users, with the automatic assessment being based at least in part on generated reputation weights of the evaluator users. For example, in some embodiments, the techniques may be performed by a Web merchant that sells various items, with the content that is provided being a textual review by a customer user of the Web merchant of an item sold by the Web merchant, and with the evaluator users who are other customer users of the Web merchant providing assessments of the textual review. In such embodiments, after various evaluator users have evaluated the customer-provided textual review of the item, and after the automatic assessment of the customer-provided textual review is performed, the Web merchant may use that prior automated assessment of the customer-provided textual review to automatically determine whether to use that customer-provided textual review for multiple other users of the Web merchant, such as whether to provide the customer-provided textual review to those multiple other users to assist in their consideration of the item that was reviewed.

As one example of features and functionality that are not taught, suggested or otherwise obvious in light of Tiwana and Delgado, the pending claims generally recite that evaluator users are each given a reputation weight based in part on prior evaluation activities of the evaluator user, and that the existing reputation weights of particular evaluation users are used in assessing content from another user based on evaluations of that content from those particular evaluation

users. For example, independent computer-implemented method claim 11 as amended recites the following:

... receiving from a reviewer user a review related to an item available from a Web merchant ...  
receiving multiple evaluations of the review, each of the multiple evaluations being from one of multiple evaluator users who each has an existing reputation weight for the Web merchant that is based at least in part on previous evaluations supplied by that evaluator user for multiple other reviews for items available from the Web merchant, ...  
automatically generating an aggregate assessment of the content of the review based at least in part on combining quantitative assessments from the received evaluations for the review, the generated aggregate assessment being further based on the existing reputation weights of the evaluator users ... and  
for each of multiple additional users of the Web merchant who are distinct from the multiple evaluator users and from the reviewer user, determining whether to provide the review to the additional user based at least in part on the automatically generated aggregate assessment for the content of the review.

The other independent claims 49 as previously rejected and 59 as amended recite similar claim elements, as follows:

59. ... receive from a reviewer user a review related to an item available from a Web merchant;  
receive evaluations of the review from each of multiple evaluator users, ... each of the evaluator users having a single existing reputation weight for the Web merchant based at least in part on previous evaluations supplied by that evaluator user for multiple other reviews for items available from the Web merchant;  
automatically generate at least one aggregate assessment of the content of the review based at least in part on combining quantitative assessments from the received evaluations for the review, one or more of the generated aggregate assessments being further based on the single existing reputation weights of the evaluator users ... and  
determine whether to provide the review to another user based at least in part on one or more of the automatically generated aggregate assessments for the content of the review.

49. ... receiving from a reviewer user a review related to an available item;  
receiving evaluations of the review from each of multiple evaluator users, ... each of the evaluator users having an existing reputation weight based at least in part on previous evaluations;  
automatically generating at least one aggregate assessment of the content of the review based at least in part on combining quantitative assessments from the received evaluations for the review, at least one of the generated aggregate assessments being further based on the reputation weights of the evaluator users ... and

determining whether to provide the review to another user based at least in part on one or more of the automatically generated aggregate assessments for the content of the review.

Conversely, Tiwana and Delgado appear to lack any teaching or suggestion to have or use various of the recited claim elements. For example, with respect to the recited claim elements related to maintaining an existing reputation weight for evaluator users based on prior evaluation activities, such as an existing reputation weight that is maintained by a Web merchant based on evaluations of reviews of items available from the Web merchant, and then using those reputation weights to assess new evaluated content, Tiwana and Delgado fail to disclose any related functionality.

The current Office Action admits that Tiwana lacks corresponding disclosure to various of the indicated claim elements, stating that “Tiwana ... does not teach ...each of the evaluator users having an existing reputation weight based at least in part on previous evaluations” (Office Action dated August 20, 2009, page 6), as well as that Tiwana lacks other recited claim elements related to use of such reputation weights. Nonetheless, the current Office Action alleges that the Delgado reference does disclose the existence and use of such reputation weights in the claimed manners.

Despite these allegations of the current Office Action, however, Delgado does not assess and maintain a distinct reputation weight for each evaluator user. Instead, Delgado discusses a type of recommendation system referred to as a ‘collaborative filtering’ recommendation system, in which the system attempts to make a recommendation for a particular user (referred to in Delgado as the “active user”) in a manner that is specific to that particular active user. To make a recommendation for a first active user, the system determines the similarity of the first active user to each of multiple other users, and uses information about the preferences of the other users to predict preferences of the first active user, based in part on the similarities specific to that first active user for the multiple other users. For example, Delgado indicates the following:

Recommender Systems are learning systems that make use of data representing multi-user preferences over items ..., to try to predict the preference towards new items or products regarding a particular user. ... In general, the task in Recommender Systems is to predict the votes of a particular user (called the active user) over a given subject or item, for deciding its recommendation. ... In Memory-based collaborative filtering algorithms [1], commonly used for Recommender Systems, the vote prediction of an active user ... is done based on some partial information regarding the active user and a set of [sic, of] weights ... The weights  $ws(a,i)$  express the similarity between each user  $i$  and the active user  $a$ .

Delgado, page 1, columns 1 and 2.

Thus, when making a recommendation for a first active user, the system determines the similarity of the first active user to each of multiple other users, and uses a first weighting corresponding to those other users based on the similarity to the first active user. However, when making a recommendation for a distinct second active user, the system similarly determines the similarity of the second active user to each of the same multiple other users, but determines a different second weighting to use corresponding to those other users (assuming that the first and second active users do not have identical preferences and other related information), since the similarities of those other users to the second active user will be different from the similarities of those same other users to the first active user. Accordingly, Delgado does not disclose a system in which each evaluator user is given a reputation weight based on their past evaluation activities – instead, in Delgado, the relevance of a particular user's past votes will be given a different weight for each active user for whom a recommendation is made, in a manner specific to that active user, in order to reflect similarities to that active user, rather than based on any inherent aspects of the other particular user's past votes.

Since Delgado and Tiwana do not disclose maintaining an existing reputation weight for evaluator users based on their prior evaluation activities, they do not disclose or render obvious various of the recited claim elements. For example, with respect to independent method claim 11 as amended, the claim recites automatically generating a single assessment of the content of a review based on the existing reputation weights of the evaluator users, and then “for each of multiple additional users of the Web merchant ..., determining whether to provide the review to the additional user based at least in part on the automatically generated aggregate assessment for the content of the review.” Since a single content assessment for a review is used to determine how to use that review with multiple additional users, Delgado's user-specific recommendation system cannot be used in the claimed manner. Not only does Delgado not teach using a single

reputation weight for an evaluator user as part of a content assessment that is later used to do recommendations for multiple distinct users, but Delgado teaches away from such a technique, as the user-specific similarity assessment that is the basis of Delgado's collaborative filtering recommendation system is not operable without doing individual user-specific similarity assessments – as such, Delgado does not, and cannot use a single existing reputation weight for an evaluator user that is not specific to an active user for whom a recommendation is being determined. Independent claims 49 and 59 recite similar language to that of claim 11, including the recitation in claim 59 that each evaluator user has a “single existing reputation weight for the Web merchant,” which again would preclude generating user-specific weighting information for each active user as taught by Delgado. In addition, various of the dependent claims recite additional related claim elements that are not disclosed by or obvious in light of Delgado and Tiwana, such as dependent claim 69 that recites “wherein the automatic generating of the aggregate assessment of the content of the review based on the existing reputation weights of the evaluator users is performed in a manner independent of the multiple additional users.”

Thus, for at least the reasons indicated above, each of the independent claims 11, 49 and 59 is patentable over Delgado and Tiwana.

Furthermore, Tiwana and Delgado appear to lack any teaching or suggestion to have or use various other of the recited claim elements. As another, independent reason why each of the independent claims is patentable over Tiwana and Delgado, each of the independent claims recites that, when performing an evaluation of a review, there are “multiple content rating dimensions available for use in assessing the review,” and that each received evaluation by one of the evaluator users of the review includes an assessment for one or more of the multiple content rating dimensions. The dependent claims 71 and 72 each further recite that “wherein the multiple available content rating dimensions include at least two of usefulness, accuracy, informativeness, and humorousness,” and the dependent claims 24 and 27 recite, respectively, that “each of the received evaluations includes quantitative assessments of the contents of the review for each of the multiple available content rating dimensions” and that “the automatic generating of the aggregate assessment of the content of the review includes generating an aggregate assessment for each of the multiple available content rating dimensions.” Conversely, neither Tiwana nor Delgado includes any disclosure related to using multiple content rating dimensions when evaluating content. Nonetheless, the current Office Action alleges that Tiwana

discloses such functionality, pointing to column 2 of page 247 of Tiwana. However, Tiwana instead discloses that users rate comments on a single rating dimension of usefulness, with two possible values (*i.e.*, of “yes” or “no” with respect to usefulness). In particular, Tiwana indicates the following:

Customers can rate and comment on books, music and other products ... Other members can add value ratings on a simple two-level feedback scale that identifies whether specific customers who read those comments found them to be of value. ... Based on the value that other members of Amazon.com's customer base attach to these rankings, the original contributors' profiles are populated with an increasing count of useful/useless votes.

Tiwana, page 247, column 2.

Moreover, Delgado similarly appears to lack any disclosure of using multiple content rating dimensions in the recited manner. Accordingly, independent claims 11, 49 and 59 are further patentable over Delgado and Tiwana for at least these reasons as well.

Furthermore, the current Office Action fails to provide any reason that one of skill in the art would be motivated to modify the systems of the prior art references to include the functionality described above that they lack, or how the prior art reference systems could even obtain the recited types of information to use in the recited manners. Applicants note that the Supreme Court recently emphasized in its *KSR v. Teleflex* ruling (U.S. Supreme Court, 2007) that a finding of obviousness should be supported by an explicit reason that one of skill in the art would have been motivated to modify existing systems or techniques to achieve the claimed systems or techniques. In particular, the Supreme Court indicated the following:

it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known. . . . A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning. See *Graham*, 383 U. S., at 36 (warning against a temptation to read into the prior art the teachings of the invention in issue, and instructing courts to . . . guard against slipping into the use of hindsight. . . (quoting *Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co.*, 332 F. 2d 406, 412 (CA6 1964))).

*KSR v. Teleflex*, 550 U.S. \_\_\_, 127 S. Ct. 1727 (2007), at pages 15-17 of the Bench Opinion.

In this situation, one example of why one skilled in the art would not have a reason to modify the Tiwana and Delgado systems to achieve the benefits of Applicants' inventive techniques recited in the pending claims is that Delgado teaches away from using reputation weights of evaluator users in the claimed manners, and would be inoperable if modified to attempt to use them.

Furthermore, no reason has been demonstrated why one of skill in the art would be motivated to modify the Tiwana and Delgado systems to include the various claimed elements that those systems lack, nor how the Tiwana and Delgado systems could be operable if modified to include the recited claim elements discussed above.

The pending dependent claims include the features of those claims from which they depend, and are thus allowable for the same reasons as those claims. Moreover, the pending dependent claims also recite additional features lacking in the cited references, and are thus allowable on the basis of those features as well. For example, dependent claims 24, 27, 69 and 71-72 were previously discussed with respect to particular claim elements that they recite that are not disclosed by or obvious in light of the relied-upon prior art references, and other dependent claims 55-56 and 65-66 include similar claim elements. Moreover, the relied-upon prior art references appear to lack any teaching or motivation related to numerous other of the dependent claims, including the following non-exclusive list:

- using an amount of prior sales to an evaluator user to affect the weighting given to evaluations from the evaluator user, such as generally with respect to claim 29;

- tracking both a reputation weight for an evaluator user that is based on a combination of quantity and quality of evaluations provided by that evaluator user, and a distinct rating score for each of the evaluator users based solely on the quality of the evaluations provided by that evaluator user, such as generally with respect to claim 31; and

- after generating multiple aggregate assessments for a piece of content that are based on multiple content rating dimensions, generating an overall aggregate assessment of the piece of content based on the multiple dimension-specific assessments, such as generally with respect to claims 28, 56 and 66.

In addition, other dependent claims recite other such additional features lacking in the cited references, although these other additional features are not enumerated here for the sake of brevity.

Thus, for at least the reasons discussed above, the pending independent claims are patentable over Tiwana and Delgado, and the pending dependent claims are also allowable for the same reasons, as well as for various additional reasons specific to the recitations of those dependent claims.



Conclusion

In light of the above remarks, Applicants respectfully submit that all of the pending claims are allowable. Applicants therefore respectfully request the Examiner to reconsider this application and timely allow all pending claims. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 694-4815.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,  
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